NAVAL SUBMARINE BASE NEW LONDON 2015 CONSUMER CONFIDENCE REPORT
(2015 Water Quality Data)

Where does my water come from?
Naval Submarine Base New London (SUBASENLON) purchases water from the City of Groton, Groton Utilities (GU). (See **http://www.grotonutilities.com**.) Groton Utilities' water is supplied by surface water from a series of five reservoirs covering a watershed of 15.6 square miles and includes three deep wells. Four reservoirs (Morgan, Ledyard, Poheganut, and Smith Lake) flow into the GU terminal reservoir, Poquonnock Reservoir. Groton Utilities pumps water from Poquonnock Reservoir to the water treatment plant, using the other four reservoirs to maintain an appropriate level in Poquonnock Reservoir. Groton Utilities reports that its water treatment plant produced an average of 5.7 million gallons a day and delivered water to approximately 44,000 customers in 2015. Groton Utilities takes its job of stewardship very seriously, and, to that end, it has a spill response trailer and a trained team that responds to any threat of contamination that could impact its watershed.

Is my water safe?
The SUBASENLON works with GU to ensure that your tap water meets all U.S. Environmental Protection Agency (USEPA) and State of Connecticut Department of Public Health (CTDPH) drinking water (DW) health standards.

The GU **2015** Consumer Confidence Report may be viewed on-line at:
http://www.grotonutilities.com/documents/water/2015.pdf (generally uploaded to its website no later than July)**.**

Groton Utilities conducts tests at SUBASENLON, to screen for bacteriological and physical characteristics of the DW. The GU water quality sampling data have been used to report the quality of the DW at SUBASENLON. Groton Utilities uses its own certified lab to test its water for most test parameters but uses an independent certified lab for other specific parameters.

The SUBASENLON Public Works (PW) Environmental Division is committed to providing consumers with up-to-date information to ensure that all consumers can make informed decisions with regard to DW use. A summary of the results of the water testing done by GU at SUBASENLON is provided in the tables that follow at the end of this report. Other tables shown in this report summarize results of water testing done in 2015 at SUBASENLON by contractors, on construction projects, or by GU, in spot checks, throughout the base.

Why are there contaminants in my drinking water?
The sources of DW (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally-occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity.

Contaminants that may be present in source water include:
Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
Inorganic contaminants, such as salts and metals, which can be naturally-occurring or result from urban storm water runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.
Pesticides and herbicides, which may come from a variety of sources, such as agriculture, urban storm water runoff, and residential uses.
Organic chemical contaminants, including synthetic and volatile organic chemicals, which are byproducts of industrial processes and petroleum production, can also come from gas stations, urban storm water runoff, and septic systems.
Radioactive contaminants, which occur naturally or as the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, the USEPA prescribes regulations limiting the amount of certain contaminants in water provided by public water systems. Food and Drug Administration regulations establish limits for contaminants in bottled water, which must provide the same protection for public health.

All DW (including bottled water) may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the **USEPA Safe Drinking Water Hotline (800-426-4791)**.

At SUBASENLON, contaminants would most likely come from corrosion of piping (mostly inside buildings) as the water makes its way from the GU treatment plant to our taps. Although tests show that most areas on base are within USEPA action levels for lead and copper, some areas show more susceptibility to lead and copper contamination. For this reason, SUBASENLON has taken steps to improve the plumbing systems in those buildings (either by replacing piping or flushing water lines). Additionally, GU treats the water at its plant to protect against pipe corrosion throughout its distribution system.

Do I need to take special precautions?
Some people may be more vulnerable to contaminants in DW than the general population. Fetuses, infants, and young children are typically more vulnerable to lead in DW than the general population. Immunocompromised persons (such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, and persons with HIV/AIDS or other immune system disorders), and some elderly persons can be particularly at risk for adverse health effects. These people should seek advice from their health care providers about DW. USEPA/Centers for Disease Control (CDC) guidelines are available from the **USEPA Safe DW Hotline (800-426-4791)** regarding appropriate means to lessen the risk of infection by cryptosporidium and other microbial contaminants.

Important information on lead in DW:
If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in DW is caused primarily by materials and components associated with service lines and home plumbing. Groton Utilities is responsible for providing high quality DW but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for ***30 seconds to two minutes*** before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in DW, testing methods, and steps you can take to minimize exposure is available from the **USEPA Safe DW Hotline (800-426-4791)** or at: **http://www.epa.gov/safewater/lead**.

How can I get involved?
For information regarding the DW available to Balfour Beatty Community Housing, please call **Balfour Beatty, at 860-446-5934 or 860-446-5913**. For information regarding DW analysis or DW sampling results, please call **Rich Massad,** at the SUBASENLON PW Environmental Division (**860-694-5140**).

Water Source Assessment
In 2003, the CTDPH performed an assessment of GU DW sources. The assessment found that GU DW sources have a low susceptibility to potential sources of contamination. The completed assessment report can be accessed at:

http://www.dir.ct.gov/dph/Water/SWAP/Community/CT0590011.pdf

Additional source water assessment information can be obtained from USEPA New England at:

https://www3.epa.gov/region1/eco/drinkwater/pc_sourcewater_assessment.html

Flushing of SUBASENLON Water System
The SUBASENLON PW Utilities Division flushes hydrants annually on lower base, and a contractor flushes hydrants on upper base and in the housing areas, every other year. Flushing is generally done in the spring and summer. Flushing prevents the build-up of rust and sediment in the water distribution system. If you notice any discoloration in the water after flushing has occurred, simply run your faucets until the water runs clear. For questions or concerns that arise during the hydrant flushing season, please call the **NAVFAC MIDLANT Service Center, Facilities Work Reception, at 866-477-7206, Option 1,** or have your building manager contact the Facilities Management Specialist in PW to discuss the issue.

Major Changes to SUBASENLON Water System
The SUBASENLON PW Utilities Division continued to perform work on the SUBASENLON water distribution system**,** as part of an overall maintenance and repair program, but there were no major physical changes to the system in 2015. The most notable change was the completion of a new Dive Locker on upper base, which involved installation of new water pipes and providing full water service in the building. Additionally, a major project to renovate a main water storage tank (#480) on base, located next to the Naval Branch Health Clinic Groton (B-449) was completed.

ROUTINE TESTING PERFORMED BY GROTON UTILITIES: PROCEDURES AND RESULTS:

Parameter	*Major Source*	*Range*	*Highest Detected Level*	*MCL*	*MCLG*	*Units*	*Violation*
Chlorine Residual, Free	Added to control microbes	0.1-1.64	1.64	N/A	N/A	mg/L	No
Total Coliforms	Naturally present in the environment	Absent	Absent	>0	0	col/100 mL	No
E. Coli	Naturally present in the environment	Absent	Absent	>0	0	N/A	No
Color	N/A	0-9	9	15	N/A	Color Units	No
Odor	N/A	0-0	0	2	N/A	TON	No
pH	N/A	7.1-9.5	9.5	10	N/A	pH units	No
Turbidity	Soil runoff and pipe sedimentation	0.08-2.01	2.01	5	N/A	NTU	No

Key to Abbreviations:
col/100mL = coliforms per 100 milliliters
MCL = Maximum Contaminant Level
MCLG = Maximum Contaminant Level Goal
mg/L = milligrams per liter
N/A = Not Applicable
ND = Not Detected
NTU = Nephelometric Turbidity Units
TON - Threshold Odor Number
< = less than
> = greater than

PHYSICAL CHARACTERISTIC SCANS (SPOT CHECKS DONE AT REQUEST OF OCCUPANTS):

Building 107, 4/15/2015

Parameter	*Result*	*Units*
Chlorine Residual, Free	1.24	mg/L
Distribution Coliform Total	Absent	col/100 mL
Distribution E.Coli	Absent	N/A
Distribution Color	1	Color Units
Distribution Odor	0	TON
Distribution pH	7.9	pH units
Distribution Turbidity	0.35	NTU

Building 492, 4/15/2015

Parameter	*Result*	*Units*
Chlorine Residual, Free	1.49	mg/L
Distribution Coliform Total	Absent	col/100 mL
Distribution E.Coli	Absent	N/A
Distribution Color	1	Color Units
Distribution Odor	0	TON
Distribution pH	7.8	pH units
Distribution Turbidity	0.30	NTU

PHYSICAL CHARACTERISTIC SCANS (SPOT CHECKS DONE AT REQUEST OF OCCUPANTS):

Building 29, 10/21/2015

Parameter	*Result*	*Units*
Chlorine Residual, Free	1.32	mg/L
Distribution Coliform Total	Absent	col/100 mL
Distribution E.Coli	Absent	N/A
Distribution Color	1	Color Units
Distribution Odor	0	TON
Distribution pH	7.6	pH units
Distribution Turbidity	0.13	NTU

Building 135, 10/21/2015

Parameter	*Result*	*Units*
Chlorine Residual, Free	1.24	mg/L
Distribution Coliform Total	Absent	col/100 mL
Distribution E.Coli	Absent	N/A
Distribution Color	0	Color Units
Distribution Odor	0	TON
Distribution pH	7.6	pH units
Distribution Turbidity	0.12	NTU

WATER TANK #480 POST-RENOVATION SAMPLING, 7/15/2015

Parameter	*Result*	*Units*
Total Chlorine	0.95	mg/L
Free Chlorine	0.86	mg/L
Coliform	Absent	per 100 ml
E. Coli	Absent	per 100 ml
Heterotrophic Plate Count (Most Probable Number)	<2	per ml
pH	7.6	pH units
Color	2	Color Units
Odor	0	TON
Turbidity	0.16	NTU
Chloroform	58	ug/L (micrograms per liter)
Bromodichloromethane	18	ug/L (micrograms per liter)
Dibromochloromethane	4.5	ug/L (micrograms per liter)
m+p Xylenes	0.92	ug/L (micrograms per liter)

NEW WATER MAIN TESTING IN SUPPORT OF NEW DIVE LOCKER

Main disinfection after installation (Target Chlorine Level = 50 parts per million (ppm))

Date	*Location*	*Free Residual Chlorine (ppm)*
2/24/2015	8" Main	13
2/24/2015	4" Main	45
2/25/2015 Sample #1	8" Main	36
2/25/2015 Sample #2	8" Main	47
2/25/2015	4" Main	190
2/26/2015	8" Main	176

Disinfection Byproducts

Date	*Location*	*Parameter*	*Result (ug/L)*
4/1/2015	4" Main	Chloroform	10
4/1/2015	4" Main	Bromodichloromethane	4.9
4/1/2015	4" Main	Dibromochloromethane	1.2
4/1/2015	8" Main	Chloroform	10
4/1/2015	8" Main	Bromodichloromethane	5
4/1/2015	8" Main	Dibromochloromethane	1.2

Bacteria & Physical Characteristics:

Parameter	*3/25/2015 Results for Shark Blvd 4" Main*	*3/25/2015 Results for Shark Blvd 8" Main*	*3/30/2015 Results for Shark Blvd 4" Main*	*3/30/2015 Results for Shark Blvd 8" Main*	*Units*
BACTERIA:					
Coliform (total)	Absent	Absent	Absent	Absent	col/100mL
E. Coli (fecal)	Absent	Absent	Absent	Absent	N/A
PHYSICAL PARAMETERS:					
Total Chlorine	1.41	1.46	1.45	1.31	ppm
pH	7.5	7.5	7.4	7.7	SU
Turbidity	0.38	0.35	1.41	.43	NTU
Color	2	0	4	1	Color Units
Odor	0	0	0	0	TON
CHEMICALS:					
Free Chlorine	1.29	1.42	1.31	1.15	mg/L
Heterotrophic Plate Count (Most Probable Number)	2	<2	<2	<2	per ml

Sampling Prior to Building Occupancy:

Date	*Parameter*	*Result*	*Units*
10/9/2015	***BACTERIA:***		
	Coliform (total)	Absent	col/100mL
10/13/2015	***PHYSICAL PARAMETERS:***		
	pH	6.2	SU

Monthly Water Testing by Naval Branch Health Clinic Groton Preventive Medicine:
In addition to the water testing noted above, monthly testing of water from various ice machines, food preparation areas, and specific Navy facilities was conducted internally, by Naval Branch Health Clinic Groton Preventive Medicine. Testing was for bacteria, in accordance with Navy Bureau of Medicine policy. **Results of any follow-up testing, done when necessary, showed that no bacteria were present in 2015.**